

Name: \_\_\_\_\_

**at1121exam\_practice: Radicals and Squares (v616)**

**Question 1**

Simplify the radical expressions.

$$\sqrt{45}$$

$$\sqrt{12}$$

$$\sqrt{8}$$

**Question 2**

Find all solutions to the equation below:

$$\frac{(x-6)^2+5}{7} = 3$$

**Question 3**

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 6x = 55$$

**Question 4**

A quadratic polynomial function is shown below in standard form.

$$y = 4x^2 - 40x + 94$$

Express the function in **vertex form** and identify the **location** of the vertex.